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U.S. Army-Baylor University

Graduate Program in Healthcare Administration

"Balanced Scorecard Goal Four: Provide Policy Management, Advocacy and Problem Solving"

Measuring Achievement of Internal Customer Objectives

A Graduate Management Project Submitted to The Residency Committee In Candidacy for the Degree of Masters in Health Care Administration

Major Sharon E. Blondeau

Army Nurse Corps, Army Reserves

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14. ABSTRACT
The Great Plains Regional Medical Command is the headquarters for command and control, budget and resource allocation, direction of clinical and administrative operations and readiness for ten Army Medical Treatment Facilities within its geographical boundaries. In an effort to maximize its efficiency and improve internal customer relations, the GPRMC has incorporated use of a Balanced Scorecard within its management scheme. The scorecard serves as a strategy map to communicate its overall plans and goals throughout organization. However, being the first Regional Medical Command within the Army Medical Department to implement a Balanced Scorecard, the Great Plains was faced with establishing measurable standards and goals to track its current status and progress. This study serves as one method for establishing a measurement tool to assess a specific band of goals on the scorecard, chosen by the headquarters. The goal, "Provide Policy Management, Advocacy and Problem Solving", addresses the relationship between the headquarters and its internal customers: the subordinate commanders and senior staff officers that directly manage the ten Medical Treatment Facilities within the region.

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Measuring Achievement of Internal Customer Objectives

Introduction

What makes an organization successful? Organizations that have a defined core business and a strategic plan to meet their customer objectives tend to be leaders within their industry. The key to organizational success and growth is the ability to translate organizational strategy into operational terms and the ability to measure performance and achievement of strategic objectives (Shortell and Kaluzny, 2000). Managers and leaders within the organization are the links between communicating strategic objectives and mission to employees. Employees are on the forefront of the organization representing the values of the organization to the customers, and are thus in a critical position to make positive or negative impacts on customers' perceptions and satisfaction. A successful organization must be able to communicate its strategy through its employees in order to meet customer objectives and achieve their satisfaction. The Balanced Scorecard (BSC) represents a mechanism for communicating that strategy and defining levels of success based on W. Edwards Deming's Total Quality Management (TQM) principles (Deming, 1986; Kaplan and Norton, 1996, 2001). The BSC and TQM both outline initiatives to improve quality, processes and outcomes. The BSC however, enhances the effectiveness of TQM principles by identifying the internal processes and defining tangible pathways critical for strategic success, and not just emphasizing that to stay competitive, one must

focus on quality and customer satisfaction (Deming, 1986; Kaplan and Norton, 2001). Once the strategic pathway is established, managers and leaders must then utilize performance measurement tools to gage whether or not their organization is meeting its customer objectives and accomplishing its strategic mission as defined in the BSC (Kaplan and Norton, 2001). A valuable measurement tool, which can be utilized to evaluate levels of achievement toward the defined targets, is the feedback survey (Cooper and Schindler, 2001).

W. Edwards Deming, considered the father of Total Quality Management, revamped Japan's industrial base after World War II by focusing on changing the old paradigms of management. Instead of concentrating on mass quantity, the focus shifted to producing a quality products and services, and by implementing statistical process controls to eliminate waste http://deming.eng.clemson.edu/pub/den/files/demob.txt). In addition to improving production efficiency and quality, Deming also encouraged the involvement of workers in decision-making, the identification of weak points and elimination of defects. Deming's TQM initiatives culminated in his book Out of the Crisis (Deming, 1986) in his 14 Points of Management (See Appendix A). His ideas eventually energized American industry, and TQM has become the new paradigm, and is used among businesses as a foundation for improving strategic posture.

In the early 1990s, Doctors Robert S. Kaplan and David P. Norton first developed the BSC to be used as a management tool to solve performance measurement problems and evaluate intangible assets. TQM principles are

incorporated into the BSC through internal business processes (Kaplan and Norton, 2001). Difficult to quantify intangible assets could not adequately be captured by traditional objective measurements in financial statements, which focus on past performance. The BSC served as an enabling mechanism to evaluate these critically evolving intangible assets and serve as a strategy map for organizational goals (Kaplan and Norton, 2001).

The focus of a BSC consists of four interrelated perspectives: mission/customer, internal process, learning and growth, and financial. In a non-profit organization such as a healthcare organization, the perspectives of internal processes, learning and growth, and financial are enabling processes towards accomplishing a key outcome, that of achieving the expectations in the mission/customer perspective. Intangible assets such as the skills, competencies and motivation of employees; capabilities of databases, information technologies, and efficient and responsive operating processes; innovation in products, services and solutions; and supportive managerial elements such as policy management, and advocacy, are difficult to measure. Yet they are key components in these enabling perspectives. The BSC serves as a mechanism for translating these intangible assets into measurable concrete building blocks. For the organization to progress and succeed, businesses have adopted the BSC ideas, incorporated them within their management systems and processes, and developed measurement tools to assess strategic performance objectives (Kaplan and Norton, 2001).

Major corporations such as Mobile, AT&T Canada, Brown & Root Energy Services, and CIGNA Property and Casualty Insurance adopted and implemented the BSC into their organizational strategy (Kaplan and Norton, 1996). Implementing the BSC allowed these companies to clarify, communicate and manage strategy. The BSC served as the central organizing framework for managerial processes: individual team and goal setting, compensation, resource allocation, budgeting and planning, and strategic feedback and learning (Kaplan and Norton, 1996). Improving these processes markedly improved their industrial posture through defining customer needs, improving customer relations and their satisfaction with products and services, increased revenues through cost reduction and product improvement, better utilization of assets and investments, and improved corporate image (Kaplan and Norton, 1996). For example, Cigna Property and Casualty were on the brink of financial disaster in 1993 when they implemented the BSC into their management strategy. Two years later, they posted a $60 million profit and increased its stock value by $55 per share (Kaplan and Norton, 1996). These outcomes show that the BSC can be an effective tool in executing organizational strategies, assessing if the corporation has met its customer objectives through its products and services while simultaneously addressing strategic financial outcomes (a key focus in a for-profit corporations). An additional benefit of the BSC is that it not only allows a corporation to evaluate its strategies but it simultaneously provides employees with a tangible method to understand and measure their functional contribution within that organizational strategy (Kaplan and Norton, 2001).

Even though these initial results consisted of industrial corporate entities, the healthcare sector, unique as it is, can also benefit in organizational effectiveness and success by studying lessons learned through implementation of the BSC in these non-healthcare organizations. Healthcare's primary outcome is the accomplishment of its customers' objectives (Shortell and Kaluzny, 2000). However the concepts of how the perspectives interrelate to achieve an ultimate outcome, whether it is a financial goal or a customer goal, are the same: intangible assets are key components to the process. Thus, the capability to measure intangible assets is a critical component of evaluating organizational strategy for a health-care as well as non-healthcare organization.

Once organizational mission, vision, values, objectives, performance indicators and targets have been defined and mapped, tools to measure this performance must be developed and implemented. The BSC provides the map of organizational strategy. Tools such as organizational surveys that provide feedback may then be used to assess and evaluate the effectiveness of defined strategies following implementation of a BSC (Rosti and Shipper, 1998).

Strategic organizational surveys focus on issues vital to the success of the business, measure progress toward meeting strategic objectives, manage organizational change and improvement, provide communication to employees and contribute data to a BSC for evaluating and rewarding management (Expert Survey Systems, 1998). A combination of a BSC with strategic organizational surveys can assist leaders in thoroughly assessing the effectiveness of their methods communicating policy management, advocacy, and problem solving. In

addition to pinpointing areas of concern, strategic organizational surveys allow managers and leaders to solicit feedback from their subordinates and gain valuable information on successful leadership and management methods (Forbes, 1996).

Conditions which prompted the study

The Surgeon General (TSG), Lieutenant General James T. Peake, Commander of the Army Medical Department (AMEDD), first aligned his vision mission and vision of the AMEDD with that of the Nation's strategic guiding directives such as the nation's National Security Strategy, Joint Vision 2020, and the Military Health System Optimization Plan. However, since these were long-term strategic planning documents, he next needed to operationalize these strategic concepts into a one to three year period. The BSC represented the framework for this operationalization as well a mechanism for evaluating the effectiveness of the strategies employed based on the five principles of a strategy focused organization (see Appendix B). The BSC provides the bridge from the desired strategic outcome to operationally defining the plan and assigning accountability to ensure its success. Lieutenant General Peake's ultimate goal is for the AMEDD to become a strategy-focused organization through utilization of the BSC as the enabling mechanism bridging far-term with near-term strategies (Program Analysis and Evaluation Directorate [PAED], 2001).

LTG Peake's desire for the AMEDD to deploy an organization-wide strategic management system necessitated subordinate organizations to develop

supporting BSCs (see Appendix C, Strategic Management System). For the AMEDD, the ultimate outcome is the accomplishment of expectations in the mission/customer perspective: “Protect and Sustain a Healthy and Medically Protected Force;” “Deploy a Trained and Equipped Medical Force That Supports Army Transformation;” and “Manage the Care of the Soldier and the Military Family” (PAED, 2001) (see Appendix C-1, AMEDD BSC). The Great Plains Regional Medical Command (GPRMC), one of six regional commands in the AMEDD, subsequently developed its BSC based on its contributory mission in fulfilling the higher headquarter’s BSC. However, even though the customer focus includes “Protect and Sustain a Healthy and Medically Protected Force,” one of its primary roles as a management headquarters is to “Provide Policy Management and Problem Solving” to its subordinate units which represent an additional customer group, the internal customer (PAED, 2001) (see Appendix C-2, GPRMC BSC).

One of the major missions of a Regional Medical Command (RMC) is to serve as a guiding link between higher headquarters and local Military Treatment Facilities (MTFs) (MEDCOM Regulation [MEDCOM Reg] 10-1, chapter 2; MEDCOM Reg 40-21, chapter 2). The Great Plains Regional Medical Command’s BSC Goal Four, Provide Policy Management, Advocacy and Problem Solving, addresses four objectives within this strategic mission/customer theme: C10 Clear Direction, C11 Priorities, C12 Protecting Interests, and C13 Innovative Solutions (see Figure 1). However, there is currently no mechanism or process in place to measure how the GPRMC is meeting these objectives and

RMC function. The need exists to assess how the GPRMC is meeting this major missions defined by MEDCOM Regulations10-1 and 40-21.

	Strategic Theme			
	Clear Direction C10	**Priorities C11**	**Protecting Interests C12**	**Innovative Solutions C13**
Objective Statement	Provide clear guidance, direction and policy interpretation to subordinate commanders	Obtain and provide clear priority of effort to subordinate commanders and senior staff officers	Serve as advocate for MTFs with regard to missions and resources	Research, develop and share successful methods, products, and technology to facilitate MTF missions

Figure 1. Great Plains Regional Medical Command Balanced Scorecard Goal Four: Provide Policy Management, Advocacy and Problem-Solving

(Source, PAED, 2001)

Statement of the Problem

Is the GPRMC meeting its internal customer objectives? The problem GPRMC is confronted with relates to the directive from TSG to develop a regional BSC with measurable variables to evaluate the stated objectives. The Surgeon General holds the GPRMC accountable for its actions in managing regional medical activities, based on the RMC mission as described in the MEDCOM Regulation 10-1 (MEDCOM Reg 10-1, chapter 2). Since a key

mission element is this role as a management headquarters, defining management indicators and a method for accomplishing such is paramount.

In a concerted effort to comply with this directive, the GPRMC commander, Brigadier General Daniel Perugini, volunteered the GPRMC to be the test site to devise its own BSC to address its mission as a regional headquarters (G. Taplin, personal communication, January 3, 2002). The GPRMC BSC outlines strategic themes and objectives that it expects from itself in accomplishing this role. However, evaluating GPRMC's Goal Four management objectives is difficult since they represent intangible assets. Therefore, developing a tool and measuring these various intangible assets is the focus of this study. The objective measurement of the GPRMC headquarter's effectiveness at policy management, advocacy and problem solving as perceived by subordinate commands is the target of this study. Prior to this study, there have been no acceptable means for evaluating this key role as described in Goal Four. This study will focus on developing an objective mechanism for evaluating this major RMC mission by means of an organizational survey measuring the attitudes of subordinate commands towards the GPRMC headquarter's leadership style and effectiveness.

Literature Review

The literature review of this study addresses the BSC, TQM, feedback surveys and statistical methods used as tools to map and measure organizational strategies and outcomes. Review of the literature reveals that the ability to execute organizational strategy through managerial skill, leadership skill

and employee feedback have a great impact on individual and organizational outcomes (Deming, 1986; Shipper, 1991; Forbes and Forbes, 1999; Kaplan and Norton, 2001). However, without appropriate statistical data to capture and measure the outcomes, compare data, and see differences over time, organizations may not achieve their desired objectives (Sanders, 1995).

Organizations such as for-profit, not-for-profit, including health care, service and manufacturing need a process to manage strategy. TQM provides a foundation for management principles involving quality products and services, sustainment of superior business relationships and involving workers in the decision-making process (Deming, 1986). The BSC serves as a map in order for any type of organization to integrate TQM strategies into operations or links between the mission/customer, internal processes, learning and growth, and financial aspects of the organization. Kaplan and Norton found that industrial age corporations, formerly protected by government through regulation and price setting, are shifting to the information age of increasing technology, deregulation and incentives for privatization (Kaplan and Norton, 1996). Industrial companies once succeeded in relatively non-competitive environments by using financial control systems that tracked resource allocation, expenditures and physical capital primarily through mass production of standardized products (Kaplan and Norton, 1996). Since technology and cost containment is now dominating service and manufacturing industry, competition has increased significantly. Industry has looked to TQM to improve internal quality processes through statistical process controls (Deming, 1986). Government deregulation and

privatization have opened markets previously restricted allowing new innovative companies to enter (Barton, 2000; Shortell and Kaluzny, 2000). Market entry strategies of new growing companies challenge existing organizations to remain competitive by a thorough self-examination of its current strategic objectives (Deming, 1986; Shortell and Kaluzny, 2000). Investing in and managing intellectual assets and integrating functional specialties into customer-based needs and products are the wave of the future (Shortell and Kaluzny, 2000). In an attempt to measure the intangible assets of the information age, Kaplan and Norton's premise was that for organizations to remain competitive, they had to have the ability to develop, nurture, and mobilize these assets (Kaplan and Norton, 2001). Financial measurements traditionally did not capture this valuable information found in these intangibles. They proposed the Balanced Scorecard as an integrated strategy map encompassing all facets of an organization to enhance strategic outcomes (Kaplan and Norton, 2001). Since then, many corporations have adapted the Balanced Scorecard principles, developing strategies that have improved their performance stature in measurable terms (Kaplan and Norton, 2001; Forbes, 2001).

The value of employee feedback as a managerial and leadership development tool can be a valid source of information since employees are in a good position to observe managerial behaviors and develop personal attitudes and perceptions of leadership effectiveness (Shipper, 1991). Organizations usually rely on some sort of periodic evaluation of their employees such as performance appraisals conducted by supervisors for both evaluation and

development of themselves and their employees (Shipper, 1991). Employees provide observations that clearly distinguish between managers of high and low performing work groups, better than either superiors or peers. Employee feedback as a tool in management development tends to achieve better results when employees see it as being part of a change approach (Shipper and John, 1992; Forbes, 2001). A strategic approach also involves buy-in from top management early in the process to assure their participation and support. Since the employees are a source of information most closely related to the management function, their observations can provide the manager with information that would otherwise remain buried. The use of employee observations as a management development tool has the potential to improve the skill level of managers plus the level of satisfaction and performance within the organization (Shipper, 1991; Shipper and John, 1992; Forbes, 2001).

Once a strategy map has been initiated, measuring the impact of changes is paramount. Organizations must integrate objective methods within their strategy to capture data over time to gain information in order to evaluate the effectiveness, efficiency and appropriateness of their actions. Statistical analysis of data can provide organizations with objective mathematical pictures of how programs are progressing. The results can produce organizational knowledge and mark points in time for data analysis and comparisons. However, there can be a risk in skewing the statistical data to show a picture not necessarily accurate (Sanders, 1995). Using multiple statistical analyses and graphic representation

to show the same data should minimize this risk, due to the chance that more results will fall within similar significance intervals.

Determining which statistical tools to use once a measurement instrument has been chosen allows the researcher to analyze hard data and make inferences regarding the state of the organization (Sanders 1995). For measuring opinions and attitudes, strategic organizational surveys provide insight to how the business strategy is perceived (www.expertss.com). The key difference between strategic organizational surveys and business strategic surveys is the shift in focus.

Other organizational surveys focus on events, employee needs and short-term objectives. They tend to see how things are going, pinpoint areas of concern and vulnerability, identify trends, and assess reactions to change. Strategic organizational surveys include these objectives and others. The focus shifts to issues vital to the success of the business by measuring progress toward meeting strategic business objectives. The strategic organizational survey seeks to manage organizational change and improvement with the continuous use of objective data, communication with employees, and contribute data to a BSC for evaluating management effectiveness (Expert Survey Systems, 1998).

Statistical analyses used to evaluate responses from surveys allow the researcher to describe the results and make inferences about the population. Common descriptive statistics include the mean and standard deviations or confidence intervals, which measure the central tendency of the sample

(Sanders, 1995). The standard deviation or confidence intervals give the researcher a range of values around the mean and provide an idea of where the actual population's mean resides (Cooper and Schindler, 2001). It is normally set at the *p*=. 05 levels concluding that there is a 95% probability that the population mean falls within this interval. The larger the sample size, the more reliable the mean will be due to the fact that the larger the sample size the more closely it will represent the tendency of the population and increase certainty of the estimate (Stat Soft, 2002).

The researcher must then determine the relationships that exist between variables. The Pearson r represents a simple linear correlation based on variables measured on interval scales. It shows the extent that the values of two variables are related to each other. For multiple variables, the data can be summarized on a scatter plot through a regression analysis. If there are any outliers, unusual and infrequent observations or data points far beyond the central tendency of the sample, they can be viewed relative to the slope of the regression line.

A t-test can then be performed to evaluate the differences in means between two groups. This analysis can be used on data acquired from surveys, which is usually gathered as interval data. An ANOVA (analysis of variance) can also be performed to compare the means of several variables where the t-test is generally used to compare only two variables at a time. To further reduce the data a factor analysis may be used.

Purpose (Variables/Working Hypothesis)

The purpose of this study is to develop a measurement tool to assess whether or not the GPRMC is meeting its internal customer objectives as outlined in the BSC Goal Four, “Provide Policy Management, Advocacy and Problem-solving”. An attitudinal survey is an appropriate tool to assess this goal.

Variables: The customer group of GPRMC’s Goal Four objectives represents the population for this study. It includes those in specific leadership roles/positions in the subordinate MTFs. Thus, the position level represents one of the independent variables targeted in this study. It includes the commanders and primary and functional staff officers of the ten MTFs within the region. Additional variables pertaining to this study population include significant demographic categories such as functional area, facility, rank/grade, corps, gender, and length of time in position which may impact the outcome of the survey depending on which group the respondent belongs. The respondent’s series of attitudes (the dependent variable) are a function of the groups in which he or she is a member. A thorough statistical analysis of these variables and assessment of whether or not any significant relationships between the variables exist will aid the GPRMC command staff in decision-making with regards to how policy is managed, advocacy is upheld and problem solving is communicated. The means, standard deviations and frequencies will be collected along with a multiple linear regression model to determine the correlations between the variables. Statistical methods allow decision makers to make decisions based on facts and observable data, rather than impulse and intuition alone, which is a

primary reason the GPRMC headquarters is supporting this study (Sanders, 1995; Jackson and Schuler, 2000).

Hypothesis: The GPRMC is meeting its internal customer objectives in providing appropriate policy management, advocacy and problem solving.

Alternate hypothesis: The GPRMC is not meeting its internal customer objectives in providing policy management, advocacy and problem solving.

Research Objective

The research objective of this study is to determine whether or not GPRMC is meeting its internal customer objectives, specifically, as a management headquarters. Since there is no current mechanism to measure Goal Four of the GPRMC's BSC, this study will serve as the benchmark. Satisfying the needs of the subordinate commanders and their primary staff officers is paramount to success in managing this network of the ten MTFs within the region. The primary objectives of the GPRMC as outlined in the BSC Goal Four (see Figure 1, p. 8) are to provide clear guidance, effectively prioritize the mission, protect interests, and communicate successful solutions for issues that arise within each facility. For example, the "Horseblanket" is an internal regional tracking tool used to measure certain management indicators within each facility, such as timeliness of awards, status of Officer and Non-Commissioned Officer Evaluation Reports, training, meeting suspenses, and patient satisfaction data (T. Edman, personal communication, September 28, 2001), a partial reflection of this management role. The tool consists of multiple PowerPoint slides linked to statistical data collected from each facility. The data is then translated into a color-coded chart

with green, amber, and red depicting the degree to which the stated objectives have been accomplished by means of percentages, for example, actual completed over total required. Each metric has different green, amber and red criteria, or percentages, based on (1) balanced approach from higher headquarters guidance and expectations (MEDCOM, TMA), (2) past performance data, and (3) acceptable thresholds for meeting the standard. For example, the GPRMC does not expect to achieve 100 percent in every category measured. However, targeting achievement related to timeliness and accuracy may be thresholds that govern at what percentage the metrics are set. The Horseblanket is one example of a measurement tool GPRMC has developed that partially measures and communicates policy management, advocacy, problem solving, and innovative solutions. Developing the GPRMC's BSC Goal Four into a measurable instrument will more completely allow the GPRMC Commander and Chief of Staff to stay abreast of the pulse of the organization, its people, their attitudes, perceptions and motivations (the intangible assets so critical for accomplishing the mission). Additionally, it will serve as a comparative analysis tool to assess differences and similarities between collective attitudes within the regional MTFs through ANOVA (analysis of variance). Until the benchmark study is analyzed, the mean score and standard deviation from the mean remain a mystery. However, after results of the first survey are collected and analyzed, the central tendency, mean and standard deviation from the mean will be established for each MTF then compared with each other to get an overall assessment of the attitude toward the GPRMC leadership. For example, if the

personnel at one MTF are satisfied with GPRMC's leadership, the collective mean of all the scores will reflect the central tendency measurement, or average attitude of the personnel in that facility. The dissatisfied MTF will reflect mean scores of its central tendency, but when compared to other facilities, we will be able to observe differences in means and varying degrees of satisfaction or dissatisfaction across the region.

Analysis of variance, mean and standard deviation within a p=95 confidence interval will serve as indicators allowing the Commander to assess this overall role as a management headquarters, and will also allow each Assistant Chief of Staff at the GPRMC headquarters to assess whether or not he/she is meeting the expectations of their immediate functional area counterparts in the designated BSC areas: provide clear guidance, direction, advocacy and policy interpretation; protecting interests, obtain and provide clear priority of effort; serve as advocate for MTFs with regard to missions and resources; research, develop and share successful methods, products, and technology to facilitate MTF missions. The reports will compare groups such as functional area within MTFs with those at the headquarters of GPRMC.

A secondary objective to be accomplished with this research is to achieve an early warning device for identifying potentially problematic issues that may be invisible to the GPRMC headquarters but might be painfully brewing within the MTF. Outliers, for example, survey scores in under the 50^{th} percentile, will be evaluated based on question, category and demographics of the respondent. Reporting and examining the results by the variables for facility where employee

works and position can assist in early identification of potential collective problems and allow for early intervention and resolution.

Concern that this survey may be perceived as a command climate assessment guided the question selection for the survey. In order not to contaminate the study with confounding variables such as evaluation of opinions on sexual harassment and discrimination, and maintain pure assessment of leadership perception and efficacy of management tactics, questions of a "managing diversity" nature are included in a specific "Regional Command Climate" category, and not mixed in with the BSC categorical questions. The questions consist of assessing reward sharing, employee commitment, and tension are left in to serve as "feelers" to identify any potential problem areas that necessitate further intervention involving a purely command climate survey and assessment.

Ethical Concerns

Many surveys conducted within the Department of Defense (DoD) require Departmental approval from various proponents. The Office of the Assistant Secretary of Defense for Health Affairs published a policy letter governing the administration and approval process of surveys and other information requirements within the Military Health System (Sears, 2000). This policy and related Department of Defense Instruction (DoDI) 1100.13 Survey of DoD Personnel, however, do not apply to this survey. Because the GPRMC is conducting a survey of its own personnel, limited to military personnel within the

Region, it is exempt from this policy and the DoDI (Sears, 2000; DoDI Survey of DoD Personnel, number1100.13, 1996).

The anonymity and confidentiality of the participants is a major concern in conducting this or any organizational survey study (Edwards, Thomas, Rosenfeld and Booth-Kewley, 1997). By capturing the demographics needed to assess opinions and attitudes of various groups at particular facilities, potential identification of respondents is inevitable. Despite safeguards to protect anonymity and confidentiality, some respondents may fear identification and subsequent reprisal for expressing negative sentiments. This fear could lead to the respondent not answering the questions truthfully, and may reduce the accuracy of the survey results. The respondents that fear being identified may be more prone to agree with positive statements or questions, thus introducing over-rater bias: the tendency to give consistently high ratings (Edwards, et al., 1997; Cooper and Schindler, 2001). The number of respondents for this survey is relatively small, approximately 170 people in each iteration, which makes anonymity virtually impossible. However, confidentiality can be maintained. Therefore, use of an independent vendor for providing programming, development, survey administration, data collection and reporting the results is tantamount to protecting the confidentiality of the participants (Edwards, et al., 1997; Cooper and Schindler, 2001). Raw data provided to the researcher will be maintained under strict academic governance and not revealed to the GPRMC headquarters staff in a manner in which to identify any respondent. Specific requests from the GPRMC headquarters staff for additional or alternative

assessments of the raw data not initially captured in the vendor's reports may be provided through the Academic Resident without compromising the identity of the respondents.

Methods and Procedures

The methodology of this research involves conducting a longitudinal study of acceptance of or resistance to TQM initiatives. The survey consists of assessing opinions and attitudes through a seven label point Likert Scale with responses ranging from (1) "never or to a small extent" to (7) "always or to a great extent" (See Figure 2). This scale will produce interval data, and the arithmetic mean will be used for the measure of central tendency. In other words, the mean will be used to measure the average attitude. The standard deviation from the mean will identify the dispersion, or range of opinions. Each response will be assigned a number score to show its degree of attitudinal favor, and then the scores totaled to measure the respondent's attitude. Four independent web-based surveys will be implemented at six-month intervals over a two-year period, covering Fiscal Years (FY) 2002 and 2003 (See Appendix D Timetable) utilizing a tool and the services from an independent vendor. However, for the purposes of this study, only the initial survey will be assessed. Monitoring the implementation and assessment of the remaining three surveys will be assigned to a project officer within the command. Use of an independent vendor and their web services to conduct the survey, and limiting the raw data access only for academic use, will maximize confidentiality of the respondents (Edwards, et al., 1997; Cooper and Schindler, 2001).

Never or to a [illegible]ent	Almost never	Sometimes	Average	Frequently	Almost Always	Always or to a Great Extent

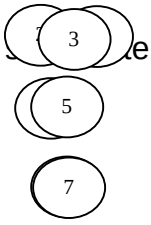

Figure 2. Seven label point Likert Scale

Approval of utilizing the services of an independent vendor must go through official contracting channels, the Great Plains Regional Contracting Officer (GPRCO), via a purchase request order (DA Form 3953) and a Statement of Work. The vendor will then develop and prepare the survey, administer the survey, collect data and run reports to be provided to the GPRMC headquarters. Additionally, the vendor will provide the raw data of the respondents for independent assessment and parametric testing through SPSS for academic use only, to determine whether or not any significant correlations exist between groups.

The proposed survey consists of an existing corporate 98-question survey Quality Views in Practice (QVIP), prepared by The Clark Wilson Group. This survey was selected because of its design as an "employee attitude" survey which meets our project focus of measuring subordinate leader and senior staff officer attitudes towards the headquarter's executive management team (http://www.boothco.com/Surveys.htm - exec_leadership). The QVIP presents an overall assessment of an organization's acceptance of or resistance to TQM initiatives based on the criteria of the Department of Commerce's Malcolm

Baldrige Quality Award. The criteria assess: leadership, strategic planning, customer and market focus, information analysis, and human resource focus. The result of the assessment is a profile of the company's strengths and weaknesses with recommendations for cost effective strategies to achieve TQM goals (http://www.cwginc.com/quality.htm). Daniel J. Booth, Ed.D. President & CEO of The Booth Company who is an independent distributor of the QVIP survey, writes in a personal communication that: "QVIP Psychometrics were first normed on PepsiCo (US and four Latin American affiliates), then Kodak, a variety of customers through SMG (an international consulting firm), a few Canadian insurance companies, Harmon Industries, and McGraw Hill publishing (who used the survey over five cycles). Reliability data was based on these data, and original validity studies were done at PepsiCo and Harmon. Concurrent validation was not seen as essential for this survey, because the survey was based on the Malcolm Baldrige Quality Award standards. Instead we pursued a content validity strategy consisting of myself, Clark Wilson, Ph.D. and an experienced Baldrige examiner (Nick Horney). Correlations were done with the PepsiCo data with other organizational survey data in 1991" (D. Booth, personal communication, 29 April 2002).

The results of the QVIP are intended to reveal the credibility and effectiveness of "management's" quality efforts (www.boothco.com). The QVIP survey, customized for the GPRMC to measure Goal Four of the BSC, will utilize 85 questions adapted from the QVIP survey assessing various leadership and management indicators that are grouped in the four BSC Goal Four categories

plus one Regional Command Climate category (Connolly and Wilson, 1994). Questions from the QVIP were assessed using a Delphi panel technique (Stuter, 2001). The panel of experts consisted of five individuals within the GPRMC headquarters who have graduated from the Army-Baylor Graduate Program in Healthcare Administration. The Delphi Technique was selected for the pilot study to obtain the expert opinions and consensus of the participants, all of whom have a similar educational background from the Army-Baylor Graduate Program in Healthcare Administration, and experience with the operations, management and the development of the BSC within the GPRMC headquarters. The Delphi study was also used to establish face validity of the instrument, in other words, so that each question appears relevant to each member of the group being measured by the survey. To further identify underlying variables and assess the validity of the question and category match, a factor analysis will be conducted. The factor analysis assists in reducing the data by identifying a small number of factors. To assess internal reliability of each question, Cronbach's Alpha will be utilized to see how well the factors hold together. These tests will be performed on the raw data with the SPSS version 10.1 statistical program. Categorical variables, such as functional area, corps, or facility will be recoded to binary (dummy) variables or other types of contrast variables.

	Strategic Theme			
	Clear Direction C10	**Priorities C11**	**Protecting Interests C12**	**Innovative Solutions C13**
Objective Statement	Provide clear guidance, direction and policy interpretation to subordinate commanders	Obtain and provide clear priority of effort to subordinate commanders and senior staff officers	Serve as advocate for MTFs with regard to missions and resources	Research, develop and share successful methods, products, and technology to facilitate MTF missions

Figure 3. Great Plains Regional Medical Command Balanced Scorecard Goal Four: Provide Policy Management, Advocacy and Problem-Solving

(Source, PAED, 2001)

A three-tiered approach for implementation of the survey will be pursued from the bottom-up. Each tier will consist of specific hierarchy levels in the organization. The lowest level of receiver, the functional counterparts to the Assistant Chiefs of Staff, will be solicited for their opinions first, then the intermediate leaders (deputy commanders), and finally the commanders. This strategy will deter any “group-think” responses or Hawthorn effect (over rating the question because the boss is watching) (Shortell and Kaluzny, 2000). It is imperative that each subordinate respond independently in order for the GPRMC to gain an accurate assessment of its leadership effectiveness.

Results

During the Delphi study, the expert panel initially independently categorized the QVIP questions into the BSC categories. However, when the results were tabulated, comparing each participant's grouping with the others, there was little consensus, thus nullifying the face validity of the instrument. Only 27 percent of the questions had three or more of the total six participants putting that question in the same category. The other 73 percent of questions were then separated, and charts depicting each BSC category were prepared. The group then met to discuss each question/category in dispute. Finally, after debating the pros and cons of each question within the disputed categories, the participants agreed on which categories the questions fit most appropriately and selected the final categories. The value added to the project by using the Delphi technique alerted us to the potential disconnect between what we intend the questions to measure, and how the questions are being perceived by the recipients. Many of the personnel targeted to receive the surveys have completed graduate education in business, medicine, or healthcare administration, and may tend to perceive the questions and what they measure similarly to the Delphi group.

The survey results were derived from SPSS analysis of the raw data that was collected and tabulated by The Booth Company, the independent vendor who conducted the survey. The survey, based on the Malcolm Baldrige Quality Award criteria, targeted leadership quality and effectiveness related to TQM principles. Of the 170 personnel sample population receiving the survey, 148

responded producing an overall 87 percent response rate. Table 1 represents the response rate by facility.

A Crosstabulation analysis of functional area and position revealed that several functional areas that should have matched up with a particular position were not in alignment (See Table 2). For example, of the nine “Deputy Commander for Nursing” representatives responding to the survey, six chose their functional area as “Command Group” and the remaining three chose “RMC/MTF Chief Nurse.” The “logistics” functional area contained five “contracting officer representatives” and one “facility manager” even though there were categories for all three functional areas. An additional facility manager chose Managed Care as the functional area, and that individual may be serving as both facility manager and chief of managed care for their facility. It also could have been an input error. Because of this misalignment, some of the more detailed queries may not show as accurate account of satisfaction within functional area and position groups. This is an apparent flaw in the instrument that can easily be corrected for further surveys by rewording the functional area and positions lists.

Using SPSS, a factor analysis to identify completeness of the data file revealed that of the 148 response sets only 38 complete sets exist, which equals 25 percent of the data. The remaining 110 response sets represent partial data, which equals 75 percent of the data. Eight questions had between 72-79 percent questions answered, 30 questions had between 80-89 percent answered, and the remaining 46 had between 90-100 percent answered (See Table 3).

A reliability analysis of each of the five BSC dimensions was conducted calculating Cronbach's alphas for each dimension. The Cronbach's alphas ranged from .80 to .89, implying the items in the dimensions are internally reliable (See Table 4). A factor analysis of the individual items identified 12 factors, which accounted for 88.5 percent of the total variance.

The overall mean scores of each BSC dimension per facility and combined mean score per dimension show some of the differences in perception of satisfaction (See Table 5). The results show that for each dimension C10 Clear Direction, C11 Priorities, C12 Protecting Interests, C13 Innovative Solutions and RCC Regional Command Climate, personnel assigned to the GPRMC have the highest mean scores. The mean scores per dimension for WBAMC however, show scores on the opposite end of the spectrum from that of GPRMC and are generally lower than any other facility.

Examining the mean scores for position reveal areas of concern (See Table 6). The DCA, DCCS, Managed Care, Operations and Readiness, Quality Management, and Contracting scored below four in one or more BSC dimensions. For every other position, dimension scores were 4.00 or higher.

It must be noted that several of the tables list one excluded case, and use 147 as the sample size for assessing mean scores for C10 Clear Direction, C11 Priorities, and C12 Protecting Interests. Upon review of the individual case causing the exclusion, it was noted that the person left the answers to most of the questions within these BSC dimensions blank.

Discussion

There appeared to be discrepancies between what position correlated with a specific functional area. Standardization of position titles that correlate within functional areas throughout GPRMC would help to align correct positions titles with actual jobs performed (functional area). To avoid this discrepancy in the remaining three surveys, eliminating the complete position list from the demographic file, except for the command positions while retaining the functional area demographic combining it with actual command position titles, and elimination of the functional area "Clinical Support Division", will streamline the data set and allow for less confusion during analysis.

The overall mean scores for each of the dimensions were above a 4.0 (See Table 5). This confirms the hypothesis that the GPRMC is generally meeting its internal customer objectives in providing appropriate policy management, advocacy and problem solving. This analysis allows us to accept the null hypothesis and reject the alternate hypothesis: The GPRMC is not meeting its internal customer objectives in providing policy management, advocacy and problem solving.

The response rate of 87 percent (148 of 170) is robust. However 110 records (75 percent of the total) were incomplete, leaving only 38 (25 percent) complete records. These incomplete records indicate that the individuals receiving the survey may have had time constraints that prohibited them from completing the survey; that they may have started the survey and were unable to complete it during the first attempt then never returned to finish; sustained prolonged

absence from their email account due to leave or duty; or possessed a general disinterest in completing the survey. Another speculation is that the survey is too long and takes too much time to complete thoroughly. The 22 personnel who did not respond may have been suspicious of opening a document from an unfamiliar sender and deleted the email outright. In spite of the incomplete records the overall satisfaction with the leadership of the GPRMC was above average, and all of the incomplete records were between 72-99 percent complete.

Even though the overall mean scores for each BSC dimension are over 4.0, further examination of the data reveals facilities and functional areas whose scores lie outside the standard deviation from the mean.

William Beaumont Army Medical Center scored below 4.0 on C10 Clear Direction, C11 Priorities and C12 Protecting Interests (See Table 5). Functional areas with mean scores below 4.0 consisted of the Deputy Commander for Administration (DCA), the Deputy Commander for Clinical Services (DCCS), Managed Care, Operations and Readiness, Quality Management and Contracting (See Table 6).

The DCA and DCCS serve as executors of directions from the GPRMC and often have to act quickly and possess limited resources. Interestingly, both these functional areas scored below 4.0 in C12 Protecting Interests. Additionally, these two functional areas within the Command Group are not routinely included in the quarterly Regional Command Conferences. In this forum, the Commander and

Command Sergeant Majors have an opportunity to meet face to face and discuss issues affecting their facilities and share innovative solutions.

One observation is that four position/functional areas scored below 4.0 in Regional Command Climate: DCA 3.78, Operations and Readiness 3.72, Quality Management 3.78, and Contracting 3.73. The response rate for Operations and readiness and Quality Management was low, only 5 personnel responding from each area. This small sample could skew the average downward. Please note that while these areas were below the average, the overall average in Regional Command Climate was 4.66.

The Managed Care area scored lower than average in C11 Priorities (See Table 6). This section often must quickly change its course of business due to data calls from higher headquarters. Many projects thought complete when submitted, often are reexamined and requests for revisions or additional data are placed on the originating MTF. The GPRMC Managed Care office is tasked with collecting the data from the regional MTFs. This could explain the lower C11 Priorities score.

The Operations and Readiness area also scored low in C13 Innovative Solutions. This section is often tasked to fill operational assignments with regional medical personnel for Joint Task Forces or special missions. Regardless of how many missions have been previously filled by the region within the training year, this section must decide how to shuffle people within the region to accommodate the operational assignments while maintaining personnel integrity within the facilities from where they draw the personnel. This can be a

stressful task as most facilities are resistant to lose personnel. The low score is probably due to the inherent nature of the business.

The Contracting section scored a 3.73 in Regional Command Climate. This section consists of civilian personnel, although many of the contracting sections fall under the leadership of logistics arena, headed by military personnel (See Table 7). There may be rules and regulations civilian personnel must follow that account for the lower score, or it may be due to working in a military environment. The other mean scores for each dimension were well over 4.0. This area will have to be examined independently in order to identify the underlying issues that account for the low Regional Command Climate score.

While some functional areas inherently consist of missions that are unpleasant due to resource constraints and limited autonomy, for example, the DCA, DCCS, Resource Management, and Contracting, implementing more thorough communication plans with the GPRMC HQ counterparts may prove beneficial. Many of the open-ended comments sited “communication” as something the GPRMC could improve upon. Including a quarterly forum for the DCA and DCCS as a part of the scheduled Regional Command Conferences may serve to alleviate some of the perceived dissatisfaction with the GPRMC leadership. Periodic video or teleconferences could be utilized to increase face-to-face interaction between the headquarters Assistant Chiefs of Staff and their functional area counterparts within the MTF. Currently there is nothing in place apart from the telephone and email for the personnel serving in these functional areas to communicate with their counterparts within the GPRMC.

The GPRMC has instituted an Organizational Assessment Program, which consists of senior staff officers from the GPRMC traveling to the MTF to assess programs and processes. However, until the MTFs view these visits as a means to improve internal systems and processes rather than as an excessive exertion of pressure from the command, cooperation with the headquarters will unlikely change, and satisfaction scores may not improve in future surveys.

The next survey is to be implemented September 2002. Prior to this, the Region will sustain a significant personnel turnover within the Headquarters and among the MTFs. While this initial survey serves as the benchmark for future surveys, care must be taken with the incoming personnel for them to understand the purpose and intent of the upcoming surveys. Even though there will be personnel turnover, the survey can still serve as a valuable measurement instrument. Lessons learned from past surveys must be implemented into current and ongoing business processes in order for there to be any system changes that can assist in improving overall satisfaction scores with the Region.

Conclusion

The GPRMC is meeting its internal customer objectives. However, there are functional areas within the region that are less than satisfied: the DCAs, DCCSs, Managed Care, Operations and Readiness, Quality Management and Contracting. Care and attention to each functional area of concern, primarily in communication between the GPRMC HQ sections and their counterparts in the field, may be the key to improve GPRMC's job satisfaction across the Region. The GPRMC HQ does not have control of all the tasking requirements for special

missions, personnel, and redirecting resources that are directed by MEDCOM. However, the GPRMC HQ does protect the MTF from many directives from higher headquarters and streamlines taskings that must be accomplished at the MTF level. Better communication of the purpose and function of the headquarters to the MTFs may be in order at quarterly meetings or conferences. There may always be some areas that remain discontent with the leadership of the GPRMC HQ, but addressing the known outliers may reduce this in the future.

Recommendations

The discrepancies that exist between position and specific functional areas must be corrected in the future surveys. Standardization of position titles that correlate within functional areas throughout GPRMC would help to align correct positions titles with actual jobs performed (functional area). This may be accomplished by eliminating the complete position list from the demographic file, except for the command positions and add these to the functional area demographic choices. Also, eliminating the position list and “Clinical Support Division” from functional area will streamline the data set and allow for less confusion during analysis.

Finally, for each new survey, thoroughly reviewing the instrument and results following each survey for completeness, commonalities, and reliability is critical to validate the tool. Then, making any necessary corrections will ensure a better instrument will help the GPRMC HQ measure its Goal Four on their Balanced Scorecard. Once each subsequent survey is completed, examination of the longitudinal data will allow the GPRMC HQ to assess its business practices over

a two-year period, and see the effects of incremental changes amidst personnel fluctuations.

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Appendix A

Condensation of the 14 Points of Deming

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.

2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.

4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. Institute training on the job.

7. Institute leadership (see Point 12 and Ch. 8). The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul as well as supervision of production workers.

8. Drive out fear, so that everyone may work effectively for the company.

9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force.

11a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.

b. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

12a. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.

b. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, inter alia, abolishment of the annual merit rating and of management by objective.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

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Appendix B

Five Principles and Steps for building a Strategy Focused Organization

Principle	Steps
1. Executive Leadership to Mobilize Change	-Clarify the Need for Change -Build Executive Team -Define Vision and Strategy -Define Desired Cultural values
2. Translate the Strategy into Operational Terms	-Strategy Maps -Quantify the Vision -Balanced Scorecards -Getting to First Report
3. Align the Organization to the Strategy	-Corporate Role -Pilot SBU -Pilot Support Unit
4. Make Strategy Everyone's Job	-Roll Out Program Design -Strategic Awareness -Personal Scorecards -Incentive Compensation
5. Make Strategy a Continual Process	-Target Setting -Initiative Rationalization -Governance and Process

(Source: PAED, 2001. Balanced scorecard workbook top to bottom strategic vision bottom to top implementation)

Appendix C

Strategic Management System Objectives of The Surgeon General, U. S. Army Medical Department

Design and deploy an enterprise-wide strategic management system (SMS) that will make rapid and effective execution of strategy the normal mode of managing.

- Drive top-to-bottom organizational understanding of strategic vision and goals
- Drive bottom-to-top development and implementation of action plans to achieve these goals using the Balanced Scorecard
- Create a dynamic system of measurements, targets, and initiatives needed to align and focus efforts throughout the system

Create a repeatable process for rationalizing, aligning, and prioritizing action plans to ensure that resources are focused against targets.

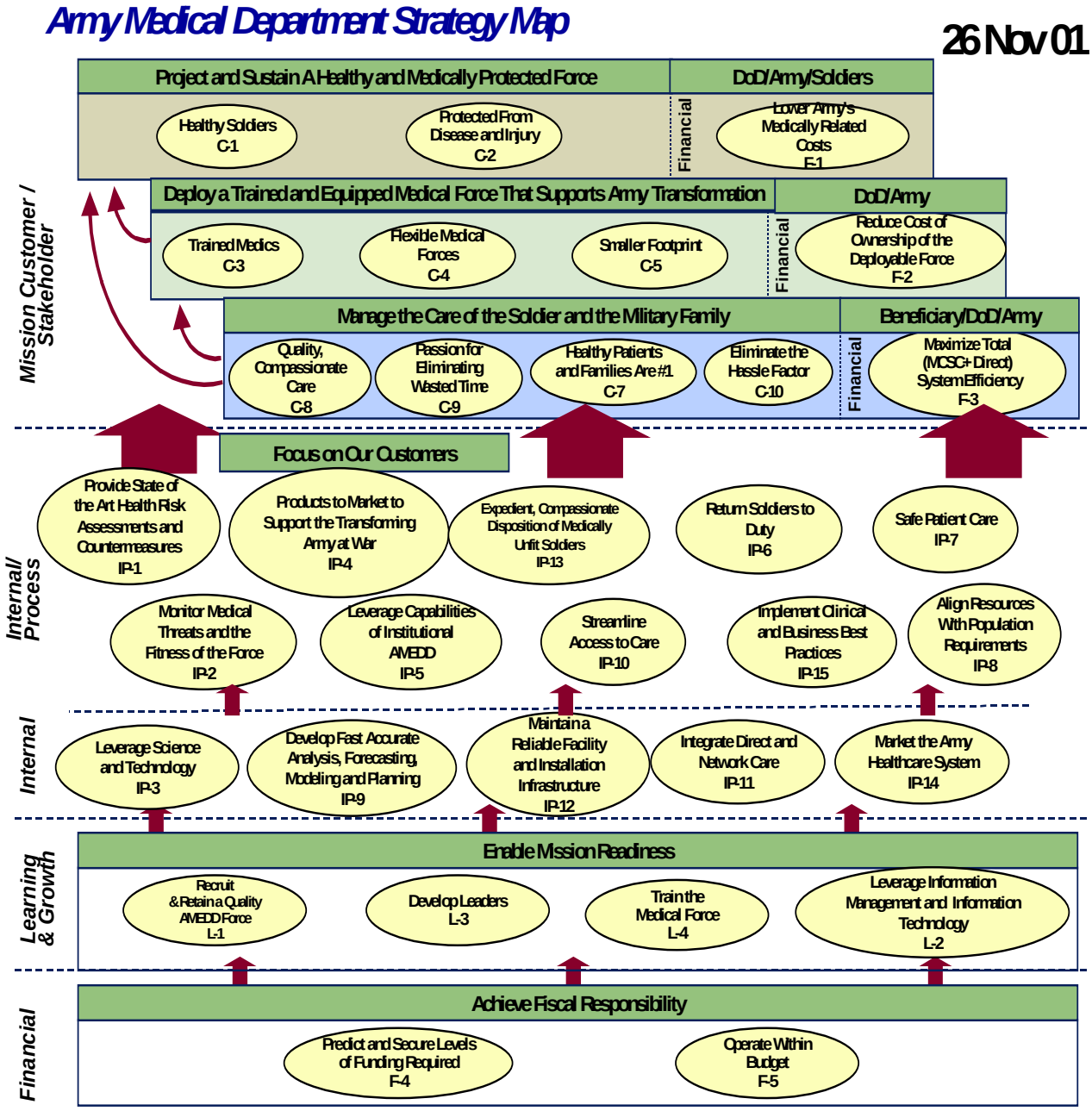
Establish a structure that demands accountability, provides incentives, and rewards success in achieving desired strategic results.

(Source: PAED, 2001. Balanced Scorecard Workbook Top to bottom strategic vision bottom to top implementation)

Appendix D

Army Medical Department

Balanced Scorecard

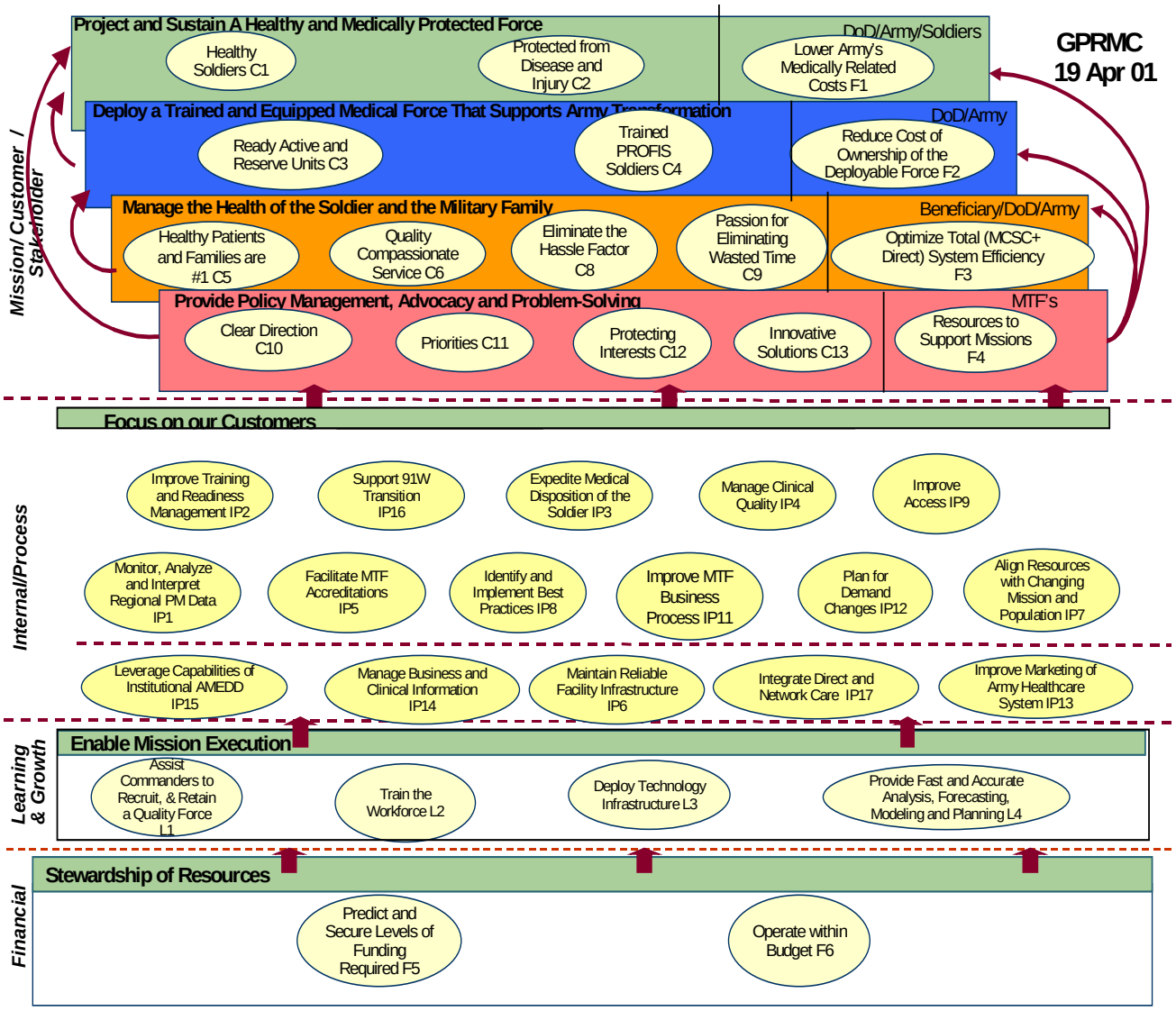


(Source: PAED, 2001. Balanced Scorecard Workbook Top to bottom strategic vision bottom to top implementation)

Appendix E

Great Plains Regional Medical Command

Balanced Scorecard



(Source: PAED, 2001. Balanced Scorecard Workbook Top to bottom strategic vision bottom to top implementation)

Appendix F

Timetable for Survey Implementation and Reporting

	JAN	FEB	MAR	AUG	SEP	OCT
FY 02	Development	Field Initial Survey	Assess and Report Results (Finalize Graduate Management Project)	Field 2nd Iteration	Assess and Report Results	Evaluate FY 02 Reports (1st and 2nd Iterations)
FY 03	Recommend any survey adjustments	Field 3rd Iteration	Assess and Report Results	Field Final Iteration	Assess and Report Results	Compile Results of all Surveys and Evaluate Effectiveness of Survey

Table 1. Response rate by facility

Facility	# Queried	#Responded	Response rate (%)
GPRMC HQ	16	12	75
Bayne-Jones ACH	16	12	75
Brooke AMC	11	11	100
Darnall ACH	16	11	69
Evans ACH	16	9	56
General Leonard Wood ACH	16	13	81
Irwin ACH	16	16	100
Munson ACH	16	17	106
Raymond W. Bliss AHC	15	15	100
Reynolds ACH	16	16	100
William Beaumont AMC	16	15	94
TOTAL	170	148	87

Table 2. Comparison of functional area with position

Functional Area	Position	Total
Clinical Support Division	Assistant Chief of Staff	1
	Chief	2
Commander/Command Group	Commander	9
	Command Sergeant Major	11
	Chief of Staff/DCA	9
	Assistant Chief of Staff	1
	DCCS	8
	DCN/PT-Health Svcs	6
Contracting	Assistant Chief of Staff	1
	Contracting Officer	2
Facilities Management	Facility Manager	12
Information Management	Assistant Chief of Staff	1
	Chief	9
Logistics	Assistant Chief of Staff	1
	Chief	9
	Contracting Officer	5
	Facility Manager	1
Managed Care	Chief	9
	Facility Manager	1
Operations and Readiness	Assistant Chief of Staff	1
	Chief	5
Personnel	Assistant Chief of Staff	1
	Chief	9
Preventive Medicine	Chief	9
Quality Management/Patient Safety	Assistant Chief of Staff	1
	Chief	5
Resource Management	Chief	8
RMC/MTF Chief Nurse/DCN	DCN	3
RMC/MTF Patient Administration Officer	Chief	8
Total		148

Table 3. Questions: percent answered, means and standard deviations

(The question content is not revealed in order to maintain the security of the patented items)

Question	Answered	Missing	Percent	Mean	SD
Q8	140	8	95	5.24	1.19
Q9	142	6	96	5.12	1.45
Q10	141	7	95	3.31	1.59
Q11	136	12	92	2.90	1.51
Q12	136	12	92	5.49	1.37
Q13	136	12	92	4.87	1.41
Q14	132	16	89	4.97	1.59
Q15	136	12	92	5.37	1.32
Q16	145	3	98	5.06	1.42
Q17	137	11	93	3.15	1.55
Q18	141	7	95	5.04	1.35
Q19	146	2	99	4.86	1.34
Q20	146	2	99	4.83	1.35
Q21	126	22	85	6.13	1.29
Q22	141	7	95	5.01	1.31
Q23	142	6	96	4.81	1.59
Q24	131	17	89	3.71	1.60

(Table continues)

Table 3. Questions: percent answered, means and standard deviations

Question	Answered	Missing	Percent	Mean	SD
Q25	111	37	75	3.14	1.67
Q26	137	11	93	5.27	1.44
Q27	142	6	96	5.30	1.35
Q28	141	7	95	5.49	1.50
Q29	141	7	95	3.48	1.25
Q30	133	15	90	5.05	1.38
Q31	135	13	91	2.73	1.38
Q32	139	9	94	5.29	1.43
Q33	133	15	90	3.12	1.71
Q34	134	14	91	4.90	1.53
Q35	135	13	91	3.06	1.41
Q36	139	9	94	2.92	1.49
Q37	144	4	97	4.92	1.42
Q38	129	19	87	4.95	1.33
Q39	115	33	78	4.30	1.52
Q40	127	21	86	4.82	1.54
Q41	130	18	88	5.22	1.39

(Table continues)

Table 3. Questions: percent answered, means and standard deviations

Question	Answered	Missing	Percent	Mean	SD
Q42	118	30	80	4.43	1.60
Q43	117	31	79	4.92	1.21
Q44	120	28	81	5.06	1.32
Q45	122	26	82	2.61	1.41
Q46	117	31	79	5.14	1.54
Q47	126	22	85	4.61	1.43
Q48	121	27	82	4.97	1.26
Q49	128	20	86	3.19	1.72
Q50	137	11	93	4.74	1.45
Q51	119	29	80	4.77	1.52
Q52	106	42	72	4.29	1.43
Q53	137	11	93	4.93	1.69
Q54	121	27	82	5.34	1.49
Q55	124	24	84	3.66	1.72
Q56	128	20	86	2.82	1.32
Q57	138	10	93	4.98	1.55
Q58	135	13	91	4.76	1.56

(Table continues)

Table 3. Questions: percent answered, means and standard deviations

Question	Answered	Missing	Percent	Mean	SD
Q59	129	19	87	3.02	1.45
Q60	135	13	91	5.28	1.44
Q61	134	14	91	5.22	1.48
Q62	137	11	93	5.31	1.26
Q63	135	13	91	5.00	1.58
Q64	128	20	86	2.42	1.15
Q65	126	22	85	5.25	1.50
Q66	134	14	91	5.63	1.19
Q67	136	12	92	2.20	1.21
Q68	134	14	91	5.10	1.36
Q69	126	22	85	4.99	1.35
Q70	137	11	93	5.18	1.40
Q71	111	37	75	5.69	1.26
Q72	132	16	89	5.17	1.35
Q73	132	16	89	3.64	1.51
Q74	126	22	85	2.75	1.26
Q75	132	16	89	5.30	1.31

(Table continues)

Table 3. Questions: percent answered, means and standard deviations

Question	Answered	Missing	Percent	Mean	SD
Q76	118	10	93	5.38	1.40
Q77	117	34	77	4.57	1.47
Q78	120	5	97	4.13	1.96
Q79	122	19	87	4.50	1.47
Q80	117	23	84	3.16	1.47
Q81	126	31	79	5.91	1.46
Q82	121	40	73	2.48	1.29
Q83	128	12	92	4.21	2.03
Q84	137	20	86	5.04	1.56
Q85	119	22	85	5.88	1.48
Q86	106	24	84	4.75	1.67
Q87	137	14	91	4.54	1.94
Q88	121	11	93	4.48	1.90
Q89	124	29	80	4.90	1.63
Q90	128	12	96	4.43	1.91
Q91	138	11	93	4.69	1.57
Q92	135	12	92	5.14	1.37

Table 4. Reliability analysis of selected dimensions

Dimension	Mean	STD Dev	Items	Alpha if item deleted
C10 Clear Direction	4.62	.67	18	.84
C11 Priorities	4.34	.56	13	.87
C12 Protecting Interests	4.51	.87	17	.80
C13 Innovative Solutions	4.43	.65	25	.83
Regional Command Climate	4.69	1.34	12	.89

N of cases = 147

Table 5. Overall satisfaction
Facility perspective by BSC dimensions

	C10 Clear Direction	C11 Priorities	C12 Protecting Interests	C13 Innovative Solutions	RCC Regional Command Climate
	Mean	Mean	Mean	Mean	Mean
GPRMC	5.05	4.68	5.11	4.96	6.11
BJACH	5.00	4.52	4.66	4.49	4.97
BAMC	4.68	4.69	4.88	4.40	4.51
DACH	4.52	4.19	4.28	4.29	4.53
EACH	4.81	4.22	4.91	4.64	5.30
GLWACH	4.68	4.14	4.44	4.37	4.91
IACH	4.59	4.20	4.45	4.39	4.34
MACH	4.39	4.30	4.42	4.27	4.19
RWBAHC	4.57	4.52	4.30	4.34	4.23
RACH	4.79	4.41	4.65	4.63	4.83
WBAMC	3.99	3.98	3.81	4.05	4.00
OVERALL	4.62	4.34	4.51	4.42	4.66

Table 6. Overall satisfaction
Position perspective by BSC dimension

Position	C10 Clear Direction	C11 Priorities	C12 Protecting Interests	C13 Innovative Solutions	Regional Command Climate
1 Commander	4.86	4.62	4.81	4.80	5.42
2 Command Sergeant Major	4.85	4.53	4.93	4.90	5.57
3 Chief of Staff/DCA	4.28	4.25	3.93	4.13	3.78
4 Assistant Chief of Staff	4.92	4.56	4.95	4.76	5.80
5 DCCS	4.34	4.19	3.97	4.05	4.11
6 DCN/PT-Health Svcs	4.82	4.41	4.58	4.64	5.12
7 Chief, Clinical Support Division	4.91	4.72	5.13	5.12	5.90
8 Chief, Information Management	4.74	4.54	4.90	4.59	5.18
9 Chief, Logistics	5.06	4.39	4.70	4.60	5.02
10 Chief, Managed Care,	4.39	3.97	4.26	4.54	4.56
11 Chief, Operations and Readiness	4.57	4.11	4.02	3.76	3.72
12 Chief, PAD	4.22	4.17	4.19	4.16	4.22
13 Chief, Personnel	4.66	4.45	4.63	4.55	4.62
14 Chief, Preventive Medicine	4.19	4.21	4.30	4.14	4.32
15 Chief, Quality Management	4.50	4.09	4.11	4.05	3.78
16 Chief, Resource Management	4.90	4.33	4.32	4.36	4.69
17 Contracting Officer Representative	4.60	4.16	4.41	4.12	3.73
18 Facility Manager	4.53	4.44	4.79	4.35	4.38
Overall	4.62	4.35	4.51	4.43	4.67

Table 7. Position with military or civilian status crosstabulation

Position	Military	Civilian	Total
1 Commander	9	0	9
2 Command Sergeant Major	11	0	11
3 Chief of Staff/DCA	8	1	9
4 Assistant Chief of Staff	7	1	8
5 DCCS	8	0	8
6 DCN/PT-Health Svcs	9	0	9
7 Chief, Clinical Support Division	2	0	2
8 Chief, Information Mgmt	6	3	9
9 Chief, Logistics	8	1	9
10 Chief, Managed Care	4	5	9
11 Chief, OPS and Readiness	3	2	5
12 Chief, PAD	8	0	8
13 Chief, Personnel	9	0	9
14 Chief, Preventive Medicine	9	0	9
15 Chief, Quality Management	1	4	5
16 Chief, Resource Management	5	3	8
17 Contracting Officer	0	7	7
18 Facility Manager	1	13	14
Total	108	40	148